### **Product Data Sheet**

### **Bones Dailies**

### DigitalFilmTechnology

### **Non-Linear Dailies Solution**

Bones Dailies is a turnkey, scalable software solution that manages the entire Dailies production process, from ingest (30 fps - 25% faster than real-time) to the creation of a color-graded Dailies master.

Whether you are working in SD, HD, or 2K material, ingesting content from the SCANITY, Spirit, or other devices such as video tape machines, or digital files (e.g. from digital cameras), Bones Dailies offers a non-linear approach that dramatically increases the efficiency of the entire Dailies process.

It features a template-driven architecture for processes and logical rules, which helps minimize mistakes. It also features built-in real-time color correction capabilities, which remove the need for expensive color correction hardware. Bones Dailies also supports ASC-based color grading for interchange with DI systems.

The Bones Dailies powerhouse enhances the efficiency of your workflow, saves time and eliminates mundane tasks, automates a variety of processes, and improves the image quality of the Dailies material being viewed by clients.

It enables collaborative and parallel workflows by subdividing the Dailies production process into individual tasks. Bones Dailies excels where traditional linear Telecine-based Dailies production workflows fail e.g. traditional workflows cannot keep track of new requirements such as multiple versions, arbitrary tape content, scene and take order, file based deliverables, etc.



The DFT Digital Film Technology Bones Dailies solution optimizes the Dailies process in many ways:

- Bones Dailies minimizes booking time in the Telecine suite, therefore saving money
- Bones Dailies improves the quality of the dailies deliverables by enabling HD and 2K workflows
- Bones Dailies enables parallel workflows for higher throughput

Bones Dailies is a turnkey software and hardware system, fully scalable, and is tailored to meet your needs and budget.

### **Key Features**

- Enables collaborative and parallel workflows by sub-dividing the Dailies production process into individual tasks (audio ingest and preparation, image ingest and preparation, metadata logging, synchronization, grading, playout and file generation)
- Reduces mistakes by using templates of processes and logical rules
- Fast and accurate synchronization using intelligent and patented algorithms to auto-detect slates

- Captures images to disk 25% faster than real-time (30fps instead of 24fps)
- Manages A-Frame issues in software
- Removes the need for expensive Color Correction hardware - has built-in real-time color correction capabilities
- Speeds up color correction by supporting non-linear, noncommitted grading and log-based workflows
- Supports ASC-based color grading for interchange with DI systems

- Supports file based deliverables directly from the system
- Enables SD, HD and 2K workflows
- Scan once for Dailies and DI workflows
- Increases Dailies throughput / capacity, without adding more Telecines or colorists
- Supports traditional film-based and digital acquisition workflows
- Perfect integration with SCANITY film scanner

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### **INGEST - Telecine and Tape Deck Control**

- Non-stop, up to 30 fps, uncompressed capture in SD/HD 4:2:2/4:4:4
- Real-time or faster than real-time 2K data capture (depends on system configuration)
- Full control of Shadow, Spirit, Spirit HD, Spirit 2K, and Spirit 4K systems, including an integrated software graphic control panel (GCP)
- Integration with SCANITY film scanner: shares the same production and meta-database
- TK-Mem preset configurations can be saved and recalled
- Key code capture via Ethernet or LTC / RS232 combination
- Controlled capture and crash record modes
- RS422 controlled capture from tape decks

### **TEMPLATES**

- Reduces mistakes with pre-defined templates for processes and logical rules
- Project-based, user-definable file and folder naming conventions: project \ episode \ shoot day \ cam \ lab roll \ frame1234567.dpx etc.
- Playout / file generation templates to specify start TC, preroll elements, aspect, masking, burn-ins, VANC lines, TV standards, etc.



Bones Dailies Image Ingest - Faster than real-time capture from SD / HD / Data, slate marking and metadata input

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### **MULTI-TRACK AUDIO**

- Audio ingest directly from DVD-RAM Player or DAT machine
- Ingest directly from embedded audio via video SDI input
- · Parallel ingest of video and audio
- Import of AIFF and broadcast WAVE files
- 12-channel audio management using BC WAV files
- Flexible channel mapping and simple channel mixing
- · GUI-based audio-level metering
- Automatic sample-rate conversion during ingest or playout
- Audio file concatenation, merging and property adjusting

### AUTO STICK / SLATE DETECTION AND SYNCHRONIZATION

- Works while audio is ingested as a file or by AES/ EBU capture
- Specially designed algorithm analyzes each audio file, identifying sticks/slate closures
- Analysis performed faster than real-time
- Manual override
- Clever algorithms to semi-automatically synchronize audio based on a variety of sync markers
- Supports audio fit and fill

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Bones Dailies Image / Audio Synchronization



Bones Dailies Audio Ingest - Real-time capture from AES or embedded sources, ingest of AIFF and WAV files, automatic slate detection and metadata logging

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### **COLOR GRADING**

- Integrated non-linear color correction removes the need for expensive external color correction hardware
- Supports ASC CDL for interchange with digital intermediate systems
- · Non-destructive grading in log or lin space
- Real-time primary color correction with CDL import/ export per timeline segment and for the whole timeline
- Real-time printer lights offset controls for primary color correction with CDL export
- Real-time creative 3D LUT for scene-by-scene look creation
- Real-time secondary color correction (optional) with unlimited number of layers with masks, vignettes, softness etc.(practical limits vary according to system configuration and image processing)
- Pre-defined Bones node tree for every clip just grade the images
- Real-time color grading dynamics allows dissolves/ dynamics between events in the Bones color correction (limitations with CDL)
- Display-device calibration via separate 3D-LUT
- Real-time print look emulation via built-in timeline 3D-LUT (same format and algorithm as DFT LUTher color space converter)

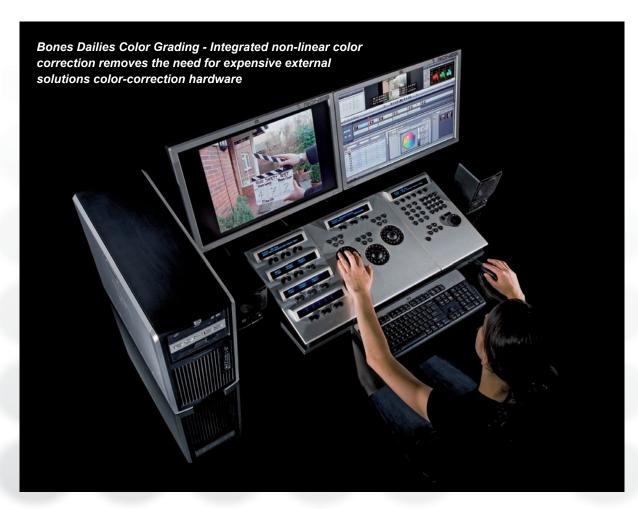
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### INTEGRATED STILL STORE

- Fast and direct access to reference frames and grades
- Split-screen wipes on grading monitor and GUI
- Import and export of stills to/from standard image file formats e.g. JPG and others
- Copy grade from reference clip/still to current clip or groups
- Dedicated shot box and favorites bins to quickly apply presaved grades to current take
- ASC CCC (Color Correction Collection) file import into separate settings bin of the still store for easy transfer of on-set created looks into the Dailies post production workflow



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### **COLLABORATION**

- Sub-divides Dailies production tasks to support parallel workflows (Bones Dailies scales from one to an unlimited number of seats)
- Supports fully parallel Image Ingest, Audio Ingest, Syncing, Grading and Playout / File generation for one or multiple projects
- Supports media and metadata management and administration
- SQL database for metadata capture, parallel access, and management

### **FLEXIBLE OUTPUTS**

- Multiple output channels: up to 3 parallel SDI output channels for playout of different versions (graded/ raw, HD or SD, burn-ins/clean etc.)
- Real-time, high-quality, GPU accelerated 2K to HD down conversions or HD to SD down conversions including 2:3 pull-down generation
- 24 to 25, 24 to 23.98, and 24 to 29.97 fps temporal flexibility
- SDI embedded and dedicated AES/EBU audio
- Three-line VITC and RP215 metadata insertion
- Integrated File-based (QuickTime, MXF, AVI, WM, MPEG, Chaptered DVD and others) deliverables from Bones - fully automated based on production templates.

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- Parallel outputs including real-time down-conversion of 2K to HD or HD to SD
- Burn-ins: internal, individual per output channel real-time character generator for burned in metadata such as TC, KC, logos, graphics, etc. removes the need for external hardware
- ALE and Flex file export including all available metadata
- Pre-installed web based ALE tape report tool for easy print-out of playout reports

### **CONTROL PANELS / USER INTERFACES**

- · Multiple USB keyboards and mice
- Tangent CP-200 series
- Tangent Wave
- FilmLight Blackboard



Bones Dailies Control Panel Example - CP-200 Panels

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### **Bones Dailies Scalability**

Bones Dailies is a scalable solution, depending on the workflow, throughput and budget requirements.

Bones Dailies starts with one seat for all Dailies tasks - audio and image ingest, sound synchronization, color correction and playout to tape or file based outputs.

For workflow enhancements, a Bones Dailies system can be upgraded to two or more workstations, where one system is dedicated to ingest and preparation tasks, and the other system(s) are used in parallel for all other tasks.

In a multiple seat configuration all tasks can be shared and performed in parallel - Telecine or tape transfers, audio preparation and sound synchronization, color correction and playout.

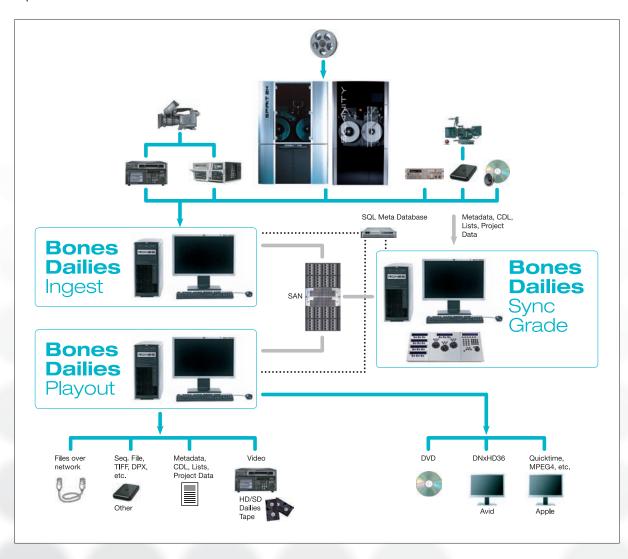
The parallel workflow is possible by using a shared SQL database for all metadata and by connecting to a SAN (Storage Area Network) to share all images and audio clips.

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3 Seat Bones Dailies System -Parallel workflow with Bones Dailies for collaborative workflows



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### **Specifications**

HARDWARE SPECIFICATIONS	
Workstation	HP Workstation Z800     Dual Intel Xeon (Quad core) CPU     12 GB RAM     NVIDIA Quadro FX 5800 graphics card     24" HP L2465 LCD monitor     2x 146 GB internal SAS disks     4x10/100/1000 Base-T Ethernet ports     QLOGIC QLE2562 dual Fibre Channel8 adapter including cable     SUSE Linux Enterprise Server (SLES) V10 workstation installed
Inputs / Outputs	SDTV+HDTV input/output (DVS Centaurus II PCI-X or PCIe card + software license) TV standards (selectable): supports most common HDTV standards, including 2K DCI standards Video inputs: SD+HD SDI inputs for RGB 4:4:4/YUV 4:2:2, 8/10-bit (BNC) Video outputs: SD+HD SDI outputs for RGB 4:4:4/YUV 4:2:2, 8/10 bit (BNC) Up to 16 channels embedded audio Hardware-implemented color-space converter for storage in RGB/A format VITC and VANC reader and generator 3D-LUT usable for the output (applies only to one output) Centaurus II multi-channel using SDI links as independent video channels, creating 2 YUV video inputs and 2 YUV video outputs Centaurus breakout box for balanced AES/EBU audio and RS422 remote control
Options	2nd Centaurus II card for 2 individual RGB 4:4:4 SDI outputs     2nd 24" LCD monitor for dual GUI configurations     GSN (GSN is only supported on workstations with PCI-X bus: XW9400 and XW8600), HiPPI or Infiniband Input for connecting Digital Film Technology Telecines and Scanners for file based data transfers     Bones Coder for file based Dailies deliverables (WM9, QuickTime, MPEG etc.)     Local RAID or JBOD storage configurations     Tangent Devices CP-200 series or WAVE control panels
3rd party SAN storage configurations and control panels are supported. Please consult your DFT Digital Film Technology sales representative for further details.	
SOFTWARE SPECIFICATIONS	
Bones Dailies Ingest	Bones Framework, Transfer, Mover and Dailies Ingest software licenses
Bones Dailies Playout	Bones Framework, Transfer, Mover and Dailies Playout software licenses
Bones Dailies Full	Bones Framework, Transfer, Mover and Dailies Full software licenses

Technical specifications are subject to change without notice



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### **System Configurations**

Bones Dailies is available only as a turnkey system - a system that combines the Bones Dailies software with enterprise computer hardware.

The Bones Dailies System is configured based on your options for local storage or your SAN requirements.

### Three Bones Dailies configurations are available:

- Bones Dailies Ingest This configuration operates as an audio and image ingest system
- Bones Dailies Playout This configuration is for creating Dailies deliverables
- **Bones Dailies Full** This configuration performs audio ingest, image ingest, audio synchronization, grading, and playout functions on a single station.

**Note:** Bones Dailies workstations are offered without disk storage. For operation, at least one disk array is required. Other storage and I/O options can be added.

Please contact your DFT Digital Film Technology sales representative for storage and configuration details.

### **Unparalleled Engineering and Quality**

The DFT Digital Film Technology engineering, research and development, sales and support team is known for their excellence in technology, design, quality, and customer service with products such as the Spirit DataCine® and Scanner family, Shadow telecine, Bones and Bones Dailies software solutions, Scream Plus grain manager, as well as the LUTher color space converter.

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### **Technical Support Services & Training**

The DFT Digital Film Technology Technical Support Services & Training team offers complete service solutions that enhance your return on DFT products and global system solutions.

Advanced training and proactive support reduce down time, and keep your equipment and staff performing at optimum productivity.

The pre-packaged suite of DFT Services provide support throughout the entire process:

- Commissioning support
- On-site repair and maintenance services
- Hotline 24 hours a day, 7 days a week
- Comprehensive software and hardware support
- Advanced exchange hardware support
- Hands-on training classes

The worldwide, experienced DFT Digital Film Technology Technical Support Services & Training experts can assist you with customized solutions.

For more information please contact your authorized DFT representative or visit us at www.dft-film.com

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Product information and specifications are subject to change without notice.

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